

WHAT IS CLAIMED IS:

1. A method for translating communication data within a call endpoint system in a cable network, comprising:

within a first call endpoint system, receiving a first data sent by a first user agent to a second user agent, the first data using a first communication protocol, the first user agent being part of the first call endpoint system and the second user agent being part of a second call endpoint system; and

within the first call endpoint system, initiating one or more second data transaction(s) with one or more intermediary cable components within the cable network based on such first data, the second data using a second communication protocol that is also utilized by the one or more cable components, the one or more intermediary cable components being configured to send one or more third data based on the second data or other data sent by the first agent to the second user agent,

wherein one of the first or second call endpoint systems is an originator of a particular call and the other of the first and second call endpoint system is a terminator of the particular call, and the first and second data forms part of the particular call.

2. A method as recited in claim 1, wherein the first protocol is Session Initiation Protocol (SIP) and the second protocol is the Network-based Call Signaling (NCS) protocol.

3. A method as recited in claim 2, wherein the first data is an INVITE message and the second data transaction(s) includes a NTFY(digits) message.

4. A method as recited in claim 3, wherein the first data is a BYE message and the second data transaction(s) includes a NTFY(OnHook) message.

5. A method as recited in claim 3, wherein the first data is an "183 SDP" message and the second data transaction(s) includes a DSA-REQ message.

5 6. A method as recited in claim 1, wherein the first protocol is Network-based Call Signaling (NCS) protocol and the second protocol is Session Initiation Protocol (SIP).

7. A method as recited in claim 1, wherein the first user agent is configured within a first customer premises equipment (CPE) and the second user agent is configured within a second CPE, the one or more other cable components including a call management server.

8. A method as recited in claim 1, further comprising:  
within the first call endpoint system, receiving a fourth data sent from the one or more intermediary cable components to the first user agent, the fourth data using the second protocol;

15 within the first call endpoint system, when the fourth data requires a response, sending a response to the one or more intermediary cable components, the response using the second protocol; and

within the first call endpoint system, initiating one or more fifth data transaction(s) with the first user agent based on the fourth data, the fifth data using the first protocol.

20 9. A method as recited in claim 8, wherein the first protocol is Session Initiation Protocol (SIP) and the second protocol is the Network-based Call Signaling (NCS) protocol.

10. A method as recited in claim 9, wherein the fourth data is a CRCX message and the fifth data transaction(s) includes an INVITE message.

11. A method as recited in claim 9, wherein the fourth data is an MDCX message and the fifth data transaction(s) includes an "183 SDP" message.

12. A method as recited in claim 9, wherein the fourth data is an DSC-ACK message and the fifth data transaction(s) includes an "180 Ring" message.

13. A method as recited in claim 9, wherein the fourth data is an DSD-RSP message and the fifth data transaction(s) includes an "200 OK" message when the first user agent has previously sent a BYE message.

14. A computer system operable to translate communication data within a call endpoint system of a cable network, the computer system comprising:

one or more processors;

one or more memory, wherein at least one of the processors and memory are adapted to within the first call endpoint system:

receive a first data sent by a first user agent to a second user agent, the first data using a first communication protocol, the first user agent being part of the first call endpoint system and the second user agent being part of a second call endpoint system; and

initiate one or more second data transaction(s) with one or more intermediary cable components within the cable network based on such first data, the second data using a second communication protocol that is also utilized by the one or more cable components, the one or more intermediary cable components being configured to send one or more third data based on the second data or other data sent by the first agent to the second user agent,

wherein one of the first or second call endpoint systems is an originator of a particular call and the other of the first and second call endpoint system is a terminator of the particular call, and the first and second data forms part of the particular call.

15. A computer system as recited in claim 14, wherein the first protocol is  
5 Session Initiation Protocol (SIP) and the second protocol is the Network-based Call Signaling (NCS) protocol.

16. A computer system as recited in claim 15, wherein the first data is an INVITE message and the second data transaction(s) includes a NTFY(digits) message.

17. A computer system as recited in claim 16, wherein the first data is a BYE  
10 message and the second data transaction(s) includes a NTFY(OnHook) message.

18. A computer system as recited in claim 16, wherein the first data is an "183 SDP" message and the second data transaction(s) includes a DSA-REQ message.

19. A computer system as recited in claim 14, wherein the first protocol is  
15 Network-based Call Signaling (NCS) protocol and the second protocol is Session Initiation Protocol (SIP).

20. A computer system as recited in claim 14, wherein the first user agent is configured within a first customer premises equipment (CPE) and the second user agent is configured within a second CPE, the one or more other cable components including a call management server, wherein the computer system forms part of the first CPE.

21. A computer system as recited in claim 14, wherein the one or more memory, wherein at least one of the processors and memory are further adapted to within the first call endpoint system:

receive a fourth data sent from the one or more intermediary cable components to the first user agent, the fourth data using the second protocol;

when the fourth data requires a response, send a response to the one or more intermediary cable components, the response using the second protocol;

initiate one or more fifth data transaction(s) with the first user agent based on the fourth data, the fifth data using the first protocol.

22. A computer system as recited in claim 21, wherein the first protocol is Session Initiation Protocol (SIP) and the second protocol is the Network-based Call Signaling (NCS) protocol.

23. A computer system as recited in claim 22, wherein the fourth data is a CRCX message and the fifth data transaction(s) includes an INVITE message.

24. A computer system as recited in claim 22, wherein the fourth data is an MDCX message and the fifth data transaction(s) includes an "183 SDP" message.

25. A computer system as recited in claim 22, wherein the fourth data is an DSC-ACK message and the fifth data transaction(s) includes an "180 Ring" message.

26. A computer system as recited in claim 22, wherein the fourth data is an DSD-RSP message and the fifth data transaction(s) includes an "200 OK" message when the first user agent has previously sent a BYE message.

27. A computer program product for translating communication data within a call endpoint system in a cable network, the computer program product comprising:

at least one computer readable medium;

within a first call endpoint system, receive a first data sent by a first user agent to a second user agent, the first data using a first communication protocol, the first user agent being part of the first call endpoint system and the second user agent being part of a second call endpoint system; and

within the first call endpoint system, initiate one or more second data transaction(s) with one or more intermediary cable components within the cable network based on such first data, the second data using a second communication protocol that is also utilized by the one or more cable components, the one or more intermediary cable components being configured to send one or more third data based on the second data or other data sent by the first agent to the second user agent,

wherein one of the first or second call endpoint systems is an originator of a particular call and the other of the first and second call endpoint system is a terminator of the particular call, and the first and second data forms part of the particular call.

28. A computer program product as recited in claim 27, wherein the first protocol is Session Initiation Protocol (SIP) and the second protocol is the Network-based Call Signaling (NCS) protocol.

29. A computer program product as recited in claim 27, wherein the first protocol is Network-based Call Signaling (NCS) protocol and the second protocol is Session Initiation Protocol (SIP).

30. A computer system as recited in claim 27, wherein the first user agent is configured within a first customer premises equipment (CPE) and the second user agent is configured within a second CPE, the one or more other cable components including a call management server.

5 31. A computer program product as recited in claim 27, wherein the computer program instructions stored within the at least one computer readable product are further configured to within the first call endpoint system:

receive a fourth data sent from the one or more intermediary cable components to the first user agent, the fourth data using the second protocol;

10 when the fourth data requires a response, send a response to the one or more intermediary cable components, the response using the second protocol;

initiate one or more fifth data transaction(s) with the first user agent based on the fourth data, the fifth data using the first protocol.

32. An apparatus for translating communication data within a call endpoint  
15 system in a cable network, the apparatus comprising:

means for receiving a first data sent by a first user agent to a second user agent, the first data using a first communication protocol; and

means for initiating one or more second data transaction(s) with one or more intermediary cable components within the cable network based on such first data, the second  
20 data using a second communication protocol that is also utilized by the one or more cable components, the one or more intermediary cable components being configured to send one or more third data based on the second data or other data sent by the first agent to the second user agent.

33. An apparatus as recited in claim 32, wherein the first protocol is Session Initiation Protocol (SIP) and the second protocol is the Network-based Call Signaling (NCS) protocol.

34. An apparatus as recited in claim 33, further comprising:

5 means for receiving a fourth data sent from the one or more intermediary cable components to the first user agent, the fourth data using the second protocol;

means for when the fourth data requires a response, sending a response to the one or more intermediary cable components, the response using the second protocol; and

10 means for initiating one or more fifth data transaction(s) with the first user agent based on the fourth data, the fifth data using the first protocol.